



SEQUENCE LISTING

<110> E. I. du Pont de Nemours and Company

<120> Chromatin Associated Proteins

<130> BB-1118-A

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<141>

<150> 60/092,841

<151> July 14, 1998

<160> 8

<170> Microsoft Office 97

<210> 1

<211> 1990

<212> DNA

<213> Oryza sativa

<400> 1

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tgatgacggt ctcgttccac aagtttgggg attatttccc ggggaccggg gacattcgcg 600  
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aatgtatgta tatgtaagta tagggacagg cagcaggcgt tactttggtg gaagctacaa 1860  
gctttgtctc tcttctcatc cctaatacct acgtggggtg cgtctcggtg ttgttttaggt 1920  
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<210> 2  
 <211> 493  
 <212> PRT  
 <213> Oryza sativa

<400> 2  
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 20 25 30  
 Tyr Gly Leu Leu Asp Gln Met Gln Val Leu Lys Pro His Pro Ala Arg  
 35 40 45  
 Asp Arg Asp Leu Cys Arg Phe His Ala Asp Asp Tyr Val Ala Phe Leu  
 50 55 60  
 Arg Ser Val Thr Pro Glu Thr Gln Gln Asp Gln Ile Arg Ala Leu Lys  
 65 70 75 80  
 Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp Gly Leu Tyr Ser  
 85 90 95  
 Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly Ala Val Lys Leu  
 100 105 110  
 Asn His Gly His Asp Ile Ala Ile Asn Trp Ala Gly Gly Leu His His  
 115 120 125  
 Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr Val Asn Asp Ile Val  
 130 135 140  
 Leu Ala Ile Leu Glu Leu Leu Lys Tyr His Gln Arg Val Leu Tyr Val  
 145 150 155 160  
 Asp Ile Asp Ile His His Gly Asp Gly Val Glu Glu Ala Phe Tyr Thr  
 165 170 175  
 Thr Asp Arg Val Met Thr Val Ser Phe His Lys Phe Gly Asp Tyr Phe  
 180 185 190  
 Pro Gly Thr Gly Asp Ile Arg Asp Ile Gly His Ser Lys Gly Lys Tyr  
 195 200 205  
 Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile Asp Asp Glu Ser Tyr  
 210 215 220  
 Gln Ser Leu Phe Lys Pro Ile Met Gly Lys Val Met Glu Val Phe Arg  
 225 230 235 240  
 Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp Ser Leu Ser Gly Asp  
 245 250 255  
 Arg Leu Gly Cys Phe Asn Leu Ser Ile Arg Gly His Ala Glu Cys Val  
 260 265 270  
 Arg Phe Met Arg Ser Phe Asn Val Pro Leu Leu Leu Leu Gly Gly Gly  
 275 280 285

Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp Cys Tyr Glu Thr Gly  
 290 300  
 Val Ala Leu Gly His Glu Leu Thr Asp Lys Met Pro Pro Asn Glu Tyr  
 305 310 315 320  
 Phe Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His Val Ala Pro Ser Asn  
 325 330 335  
 Met Glu Asn Lys Asn Thr Arg Gln Gln Leu Asp Asp Ile Arg Ser Arg  
 340 345 350  
 Leu Leu Asp Asn Leu Ser Lys Leu Arg His Ala Pro Ser Val Gln Phe  
 355 360 365  
 Gln Glu Arg Pro Pro Glu Ala Glu Leu Pro Glu Gln Asp Glu Asp Gln  
 370 375 380  
 Glu Asp Pro Asp Glu Arg His His Ala Asp Ser Asp Val Glu Met Asp  
 385 390 395 400  
 Asp Val Lys Pro Leu Asp Asp Ser Gly Arg Arg Ser Ser Ile Gln Asn  
 405 410 415  
 Val Arg Val Lys Arg Glu Ser Ala Glu Thr Asp Ala Ala Asp Gln Asp  
 420 425 430  
 Gly Asn Arg Val Ala Ala Glu Asn Thr Lys Gly Thr Glu Pro Ala Ala  
 435 440 445  
 Asp Gly Val Gly Ser Ser Lys Gln Thr Val Pro Thr Asp Ala Ser Ala  
 450 455 460  
 Met Ala Ile Asp Glu Pro Gly Ser Leu Lys Val Glu Pro Asp Asn Ser  
 465 470 475 480  
 Asn Lys Leu Gln Asp Gln Pro Ser Val His Gln Lys Thr  
 485 490

<210> 3  
 <211> 1805  
 <212> DNA  
 <213> Glycine max

<400> 3  
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 ttcaagtctt caactatctg aatttctgaa ctcatccatt cgtagcgca stagaacgaa 120  
 aactgagtaa tggaaagtgg agggaaactcc cttccatcag ggtcagatgg tgtgaagaga 180  
 aaggtttcat atttctatga tccagagggt ggaaactatt attatgggca gggacaccca 240  
 atgaaaccac acaggattcg aatgacacat gctcttttag ccactatgg attgcttcaa 300  
 cacatgcagg ttctgaagcc tatggctgct aaagataggg acctttgcaa gttccatgct 360  
 gatgattatg tggcctttct gagaggtcat acccctgaaa cgcagcaaga tcaattgaga 420  
 cagctgaaga ggtttaatgt tggcgaagac tgccctgtat ttgatggtct ttactctttc 480  
 tgccagacat atgcaggagg ttctgttggt ggtgctctaa agttgaacca tggagtatgt 540  
 gatattgcaa taaattgggc tgggtgtcta catcatgcaa agaagtgtga ggcttctggg 600  
 ttttgctatg ttaatgacat tgtgctggct attttgaac ttctcaaaat acatgagcgt 660  
 gttctgtatg tggacattga tatccaccat ggtgatggtg tagaggaggc cttttacacc 720  
 accgataggg tcatgactgt ttcgtttcat aagtttgggg attactttcc tggaacaggt 780  
 gatattcgtg atattggata tgctaaaggg aaatattatt cactaaatgt tcccttggat 840  
 gatggaattg atgatgagag ctatcagtc tttgtttaagc caataatggg aaagggttatg 900

gagattttta ggcccgggtgc tgttgtatta caatgtgggtg ctgactcttt atctggggac 960  
 aggttaggtt gtttcaatct ttccataaaa ggtcatgcag agtgtgtcag atatatgaga 1020  
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 cttctagaga gagatgaaga tcaagatgat agagatgaaa gatgggatcc cgattctgac 1380  
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 aagcattact gatcaacctt ctcccttgact agtgtctgtc gacctgtaaa ttatagtttc 1620  
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 aaaaa 1805

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 <211> 473  
 <212> PRT  
 <213> Glycine max

<400> 4  
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 35 40 45  
 Leu Leu Ala His Tyr Gly Leu Leu Gln His Met Gln Val Leu Lys Pro  
 50 55 60  
 Met Ala Ala Lys Asp Arg Asp Leu Cys Lys Phe His Ala Asp Asp Tyr  
 65 70 75 80  
 Val Ala Phe Leu Arg Gly Ile Thr Pro Glu Thr Gln Gln Asp Gln Leu  
 85 90 95  
 Arg Gln Leu Lys Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp  
 100 105 110  
 Gly Leu Tyr Ser Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly  
 115 120 125  
 Ala Leu Lys Leu Asn His Gly Val Cys Asp Ile Ala Ile Asn Trp Ala  
 130 135 140  
 Gly Gly Leu His His Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr  
 145 150 155 160  
 Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Ile His Glu  
 165 170 175  
 Arg Val Leu Tyr Val Asp Ile Asp Ile His His Gly Asp Gly Val Glu  
 180 185 190

Glu Ala Phe Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys  
 195 200 205  
 Phe Gly Asp Tyr Phe Pro Gly Thr Gly Asp Ile Arg Asp Ile Gly Tyr  
 210 215 220  
 Ala Lys Gly Lys Tyr Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile  
 225 230 235 240  
 Asp Asp Glu Ser Tyr Gln Ser Leu Phe Lys Pro Ile Met Gly Lys Val  
 245 250 255  
 Met Glu Ile Phe Arg Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp  
 260 265 270  
 Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Ser Ile Lys Gly  
 275 280 285  
 His Ala Glu Cys Val Arg Tyr Met Arg Ser Phe Asn Val Pro Leu Leu  
 290 295 300  
 Leu Leu Gly Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp  
 305 310 315 320  
 Cys Phe Glu Thr Ser Val Ala Leu Gly Ile Glu Leu Asp Asp Lys Met  
 325 330 335  
 Pro Gln His Glu Tyr Tyr Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His  
 340 345 350  
 Val Ala Pro Ser Asn Met Glu Asn Lys Asn Ser Arg Gln Leu Leu Asp  
 355 360 365  
 Glu Ile Arg Ala Lys Leu Leu Asp Asn Leu Ser Arg Leu Gln His Ala  
 370 375 380  
 Pro Ser Val Pro Phe Gln Glu Arg Pro Pro Asp Ala Glu Leu Leu Glu  
 385 390 395 400  
 Arg Asp Glu Asp Gln Asp Asp Arg Asp Glu Arg Trp Asp Pro Asp Ser  
 405 410 415  
 Asp Arg Glu Val Gly Asp Asp Ser Asn Pro Val Arg Arg Arg Val Lys  
 420 425 430  
 Ser Glu Cys Val Asp Ala Glu Asp Lys Asp Thr Val Ser Gly Val Asp  
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 Ser Met Ala Val Asp Glu Pro Cys Ile Lys Glu Glu Gln Asp Asn Leu  
 450 455 460  
 Lys Glu Leu Ser Asp His Arg Pro Arg  
 465 470

<210> 5  
 <211> 541  
 <212> DNA  
 <213> Triticum aestivum

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cgggcagaag cggngcgtgt gctacttcta cgactcggag gtgggcaact actactacgg 180  
gcagggccac ccgatgaagc cgcaccgcat ccgcatgacc cactcgtcgc tggcgagta 240  
cggcctcctc gaccagatgc aggtgctgcg gcccaacccc gcccgcgacc gcgacctctg 300  
ccgcttccac gccgacgact acatctcctt cctccgctcc gtcacgcccg agacgcaaca 360  
agaccaaatt cggggcctca aagcgcntca acgtcgggtga agaattggccc gtccttnaag 420  
ggctccaaaa gcntctggca aacctaacgg ggggggctcc gttngggggg gcgtnaaant 480  
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t 541

<210> 6  
<211> 120  
<212> PRT  
<213> Triticum aestivum

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<221> UNSURE  
<222> (24)

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<221> UNSURE  
<222> (108)

<220>  
<221> UNSURE  
<222> (118)

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Gly Pro Asp Gly Gln Lys Arg Xaa Val Cys Tyr Phe Tyr Asp Ser Glu  
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Val Gly Asn Tyr Tyr Tyr Gly Gln Gly His Pro Met Lys Pro His Arg  
35 40 45  
Ile Arg Met Thr His Ser Leu Leu Ala Gln Tyr Gly Leu Leu Asp Gln  
50 55 60  
Met Gln Val Leu Arg Pro Asn Pro Ala Arg Asp Arg Asp Leu Cys Arg  
65 70 75 80  
Phe His Ala Asp Asp Tyr Ile Ser Phe Leu Arg Ser Val Thr Pro Glu  
85 90 95  
Thr Gln Gln Asp Gln Ile Arg Gly Leu Lys Arg Xaa Asn Val Gly Glu  
100 105 110  
Glu Trp Pro Val Leu Xaa Gly Leu  
115 120

<210> 7  
<211> 513  
<212> PRT  
<213> Zea mays

<400> 7  
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20 25 30  
Val Gly Asn Tyr Tyr Tyr Gly Gln Gly His Pro Met Lys Pro His Arg  
35 40 45  
Ile Arg Met Thr His Ser Leu Leu Ala Arg Tyr Gly Leu Leu Asn Gln  
50 55 60  
Met Gln Val Tyr Arg Pro Asn Pro Ala Arg Glu Arg Glu Leu Cys Arg  
65 70 75 80  
Phe His Ala Glu Glu Tyr Ile Asn Phe Leu Arg Ser Val Thr Pro Glu  
85 90 95  
Thr Gln Gln Asp Gln Ile Arg Leu Leu Lys Arg Phe Asn Val Gly Glu  
100 105 110

Glu Cys Pro Val Leu Asp Gly Leu Tyr Ser Phe Cys Gln Thr Tyr Ala  
 115 120 125  
 Gly Ala Ser Val Gly Gly Ala Val Lys Phe Asn His Gly His Asp Ile  
 130 135 140  
 Ala Ile Asn Trp Ser Gly Gly Leu His His Ala Lys Lys Cys Glu Ala  
 145 150 155 160  
 Ser Gly Phe Cys Tyr Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu  
 165 170 175  
 Leu Lys His His Glu Arg Val Leu Tyr Val Asp Ile Asp Ile His His  
 180 185 190  
 Gly Asp Gly Val Glu Glu Ala Phe Tyr Thr Thr Asp Arg Val Met Thr  
 195 200 205  
 Val Ser Phe His Lys Phe Gly Asp Tyr Phe Pro Gly Thr Gly Asp Ile  
 210 215 220  
 Arg Asp Ile Gly His Ser Lys Gly Lys Tyr Tyr Ser Leu Asn Val Pro  
 225 230 235 240  
 Leu Asp Asp Gly Ile Asp Asp Glu Ser Tyr Gln Ser Leu Phe Lys Pro  
 245 250 255  
 Ile Met Gly Lys Val Met Glu Val Phe Arg Pro Gly Ala Val Val Leu  
 260 265 270  
 Gln Cys Gly Ala Asp Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn  
 275 280 285  
 Leu Ser Ile Lys Gly His Ala Glu Cys Val Arg Tyr Met Arg Ser Phe  
 290 295 300  
 Asn Val Pro Leu Leu Leu Leu Gly Gly Gly Tyr Thr Ile Arg Asn  
 305 310 315 320  
 Val Ala Arg Cys Trp Cys Tyr Glu Thr Gly Val Ala Leu Gly Gln Glu  
 325 330 335  
 Pro Glu Asp Lys Met Pro Val Asn Glu Tyr Tyr Glu Tyr Phe Gly Pro  
 340 345 350  
 Asp Tyr Thr Leu His Val Ala Pro Ser Asn Met Glu Asn Lys Asn Thr  
 355 360 365  
 Arg Gln Gln Leu Asp Asp Ile Arg Ser Lys Leu Ser Lys Leu Arg His  
 370 375 380  
 Ala Pro Ser Val His Phe Gln Glu Arg Val Pro Asp Thr Glu Ile Pro  
 385 390 395 400  
 Glu Gln Asp Glu Asp Gln Asp Asp Pro Asp Glu Arg His Asp Pro Asp  
 405 410 415  
 Ser Asp Met Glu Val Asp Asp His Lys Ala Val Glu Glu Ser Ser Arg  
 420 425 430



Arg Ser Ile Leu Gly Ile Lys Ile Lys Arg Glu Phe Gly Glu Asn Ala  
435 440 445

Thr Arg Val Gln Asp Gly Gly Arg Val Ala Ser Glu His Arg Gly Leu  
450 455 460

Glu Pro Met Ala Glu Asp Ile Gly Ser Ser Lys Gln Ala Pro Gln Ala  
465 470 475 480

Asp Ala Ser Ala Met Ala Ile Asp Glu Pro Ser Asn Val Lys Asn Glu  
485 490 495

Pro Glu Ser Ser Thr Lys Leu Gln Gly Gln Ala Ala Ala Tyr His Lys  
500 505 510

Pro

<210> 8

<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 8

Met Asp Thr Gly Gly Asn Ser Leu Ala Ser Gly Pro Asp Gly Val Lys  
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Gly Gln Gly His Pro Met Lys Pro His Arg Ile Arg Met Thr His Ala  
35 40 45

Leu Leu Ala His Tyr Gly Leu Leu Gln His Met Gln Val Leu Lys Pro  
50 55 60

Phe Pro Ala Arg Asp Arg Asp Leu Cys Arg Phe His Ala Asp Asp Tyr  
65 70 75 80

Val Ser Phe Leu Arg Ser Ile Thr Pro Glu Thr Gln Gln Asp Gln Ile  
85 90 95

Arg Gln Leu Lys Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp  
100 105 110

Gly Leu Tyr Ser Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly  
115 120 125

Ser Val Lys Leu Asn His Gly Leu Cys Asp Ile Ala Ile Asn Trp Ala  
130 135 140

Gly Gly Leu His His Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr  
145 150 155 160

Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Gln His Glu  
165 170 175

Arg Val Leu Tyr Val Asp Ile Asp Ile His His Gly Asp Gly Val Glu  
180 185 190

Glu Ala Phe Tyr Ala Thr Asp Arg Val Met Thr Val Ser Phe His Lys  
 195 200 205  
 Phe Gly Asp Tyr Phe Pro Gly Thr Gly His Ile Gln Asp Ile Gly Tyr  
 210 215 220  
 Gly Ser Gly Lys Tyr Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile  
 225 230 235 240  
 Asp Asp Glu Ser Tyr His Leu Leu Phe Lys Pro Ile Met Gly Lys Val  
 245 250 255  
 Met Glu Ile Phe Arg Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp  
 260 265 270  
 Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Ser Ile Lys Gly  
 275 280 285  
 His Ala Glu Cys Val Lys Phe Met Arg Ser Phe Asn Val Pro Leu Leu  
 290 295 300  
 Leu Leu Gly Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp  
 305 310 315 320  
 Cys Tyr Glu Thr Gly Val Ala Leu Gly Val Glu Val Glu Asp Lys Met  
 325 330 335  
 Pro Glu His Glu Tyr Tyr Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His  
 340 345 350  
 Val Ala Pro Ser Asn Met Glu Asn Lys Asn Ser Arg Gln Met Leu Glu  
 355 360 365  
 Glu Ile Arg Asn Asp Leu Leu His Asn Leu Ser Lys Leu Gln His Ala  
 370 375 380  
 Pro Ser Val Pro Phe Gln Glu Arg Pro Pro Asp Thr Glu Thr Pro Glu  
 385 390 395 400  
 Val Asp Glu Asp Gln Glu Asp Gly Asp Lys Arg Trp Asp Pro Asp Ser  
 405 410 415  
 Asp Met Asp Val Asp Asp Asp Arg Lys Pro Ile Pro Ser Arg Val Lys  
 420 425 430  
 Arg Glu Ala Val Glu Pro Asp Thr Lys Asp Lys Asp Gly Leu Lys Gly  
 435 440 445  
 Ile Met Glu Arg Gly Lys Gly Cys Glu Val Glu Val Asp Glu Ser Gly  
 450 455 460  
 Ser Thr Lys Val Thr Gly Val Asn Pro Val Gly Val Glu Glu Ala Ser  
 465 470 475 480  
 Val Lys Met Glu Glu Gly Thr Asn Lys Gly Gly Ala Glu Gln Ala  
 485 490 495  
 Phe Pro Pro Lys Thr  
 500